Rec'd PCTAPTO 10 SEP 2004

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 18 September 2003 (18.09.2003)

PCT

(10) International Publication Number WO 03/076822 A1

(51) International Patent Classification7:

- (21) International Application Number: PCT/NO03/00085
- (22) International Filing Date: 11 March 2003 (11.03.2003)
- (25) Filing Language:

Norwegian

F16F 3/00

(26) Publication Language:

English

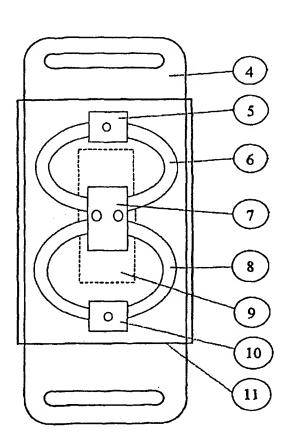
(30) Priority Data: 20021282

14 March 2002 (14.03.2002) NO

- (71) Applicant and
- (72) Inventor: KAARSTEIN, Olav [NO/NO]; Gauterødveien 53, N-3154 Tolvsrød (NO).
- (74) Agents: URANG, Lars-Fredrik et al.; Onsagers AS, P.O. Box 6963 St. Olavs plass, N-0130 Oslo (NO).
- (81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: A DEVICE AND A SYSTEM FOR DAMPING VIBRATIONS, IMPACT AND SHOCK



(57) Abstract: The invention relates to a device and a system for damping vibrations, impact and shock where two damping elements (6, 8) are attached to one end of an oblong plate (4) respectively, and connected via a central joining element (7) holding the device exposed to vibrations. The damping elements (6, 8) may be in the form of wire rings.

WO 03/076822 A1

WO 03/076822 A1



Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/NO 03/00085

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: F16F 3/00 According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: F16F, B60N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE, DK, FI, NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C.	DOCUMENTS	CONSIDERED	10	BE	RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3588008 A (HOWARD JOHN WYMAN), 28 June 1971 (28.06.71), figures 1,2	1,3,5,7,9,11
Y		2,4,6,8,10, 12
		
X	DE 2909934 B1 (CONTINENTAL GUMMI-WERKE AG), 27 March 1980 (27.03.80), figure	1,7
Y	US 2604315 A (H.W. PATTERSON), 22 July 1952 (22.07.52), figure 2	6,12
		

X	Further documents are listed in the continuation of Box	C.	See patent family annex.		
*	Special categories of cited documents:	"T"	later document published after the international filing date or priority		
"A"	document defining the general state of the art which is not considered to be of particular relevance		date and not in conflict with the application but cited to understand the principle or theory underlying the invention		
"E"	earlier application or patent but published on or after the international filing date	"X"	considered novel or cannot be considered to involve an inventive		
"L"	cument which may throw doubts on priority claim(s) or which is ed to establish the publication date of another citation or other		step when the document is taken alone		
	special reason (as specified)	"Y"	document of particular relevance: the claimed invention cannot be		
″O"	document referring to an oral disclosure, use, exhibition or other means		considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art		
"P"	document published prior to the international filing date but later than the priority date claimed	"& "	document member of the same patent family		
Date	e of the actual completion of the international search	Date	of mailing of the international search report		
			0		
11 June 2003		1 2 -06- 2003			
	ne and mailing address of the ISA/	Autho	rized officer		
Swe	edish Patent Office				
	5055, S-102 42 STOCKHOLM	Anne	ette Riedel / JA A		
Fac	simile No. +46 8 666 02 86	Telepi	none No. +46 8 782 25 00		

INTERNATIONAL SEARCH REPORT

International application No. PCT/NO 03/00085

	PC1/NO 03/0	0083
ation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Citation of document, with indication, where appropriate, of the relevant	ant passages	Relevant to claim No.
US 4725048 A (JARRET, DECEASED ET AL), 16 February 1988 (16.02.88), figures 1,2		2,6,8,12
 GB 2004621 A (RAUL JORN), 4 April 1979 (04.04. figures 1-5	79),	4,10
US 5294085 A (LLOYD ET AL), 15 March 1994 (15.03.94)		
PATENT ABSTRACTS OF JAPAN vol. 018, no. 219 (C-1192), 20 April 1994 (1994-04-20) & JP 6014823 A (TACHI S CO LTD), 25 January 1994 (1994-01-25) abstract		
		·
	US 4725048 A (JARRET, DECEASED ET AL), 16 February 1988 (16.02.88), figures 1,2 —— GB 2004621 A (RAUL JORN), 4 April 1979 (04.04. figures 1-5 —— US 5294085 A (LLOYD ET AL), 15 March 1994 (15.03.94) —— PATENT ABSTRACTS OF JAPAN vol. 018, no. 219 (C-1192), 20 April 1994 (1994-04-20) & JP 6014823 A (TACHI S CO LTD), 25 January 1994 (1994-01-25)	Citation of document, with indication, where appropriate, of the relevant passages US 4725048 A (JARRET, DECEASED ET AL), 16 February 1988 (16.02.88), figures 1,2 GB 2004621 A (RAUL JORN), 4 April 1979 (04.04.79), figures 1-5 US 5294085 A (LLOYD ET AL), 15 March 1994 (15.03.94) PATENT ABSTRACTS OF JAPAN vol. 018, no. 219 (C-1192), 20 April 1994 (1994-04-20) & JP 6014823 A (TACHI S CO LTD), 25 January 1994 (1994-01-25)

INTERNATIONAL SEARCH REPORT

Information on patent family members

29/04/03

International application No.

PCT/NO 03/00085

	nt document search report	İ	Publication date		itent family member(s)	Publication date
JS	3588008	A	28/06/71	DE FR GB JP	1907623 A 2002076 A 1210125 A 49024605 B	29/01/70 03/10/69 28/10/70 24/06/74
DE	2909934	B1	27/03/80	NONE		
US	2604315	A	22/07/52	NONE		
US	4725048	A	16/02/88	DE EP SE FR JP JP JP	3673091 D 0208616 A,B 0208616 T3 2584467 A,B 1740590 C 4027412 B 62062031 A	00/00/00 14/01/87 09/01/87 15/03/93 11/05/92 18/03/87
GB	2004621	A	04/04/79	AT AT DE DE FR IT IT	354862 B 679277 A 2826923 A 7818415 U 2404152 A 1099130 B 7827942 D	11/02/80 15/06/79 12/04/79 08/03/79 20/04/79 18/09/85 00/00/00
JS	5294085	A	15/03/94	US	RE35572 E	29/07/97